

ABSTRACT

There is disclosed an ink jet printhead which comprises a plurality of nozzles 3 and one or more heater elements 10 corresponding to each nozzle 3. Each heater element 10 is
5 configured to heat a bubble forming liquid 11 in the printhead to a temperature above its boiling point to form a gas bubble 12 therein. The generation of the bubble 12 causes the ejection of a drop 16 of an ejectable liquid (such as ink) through an ejection aperture 5 in each nozzle 3, to effect printing. The heat energy difference between an ejected drop of the ejectable liquid and an equivalent volume of the ejectable liquid supplied to the nozzle to
10 replace the ejected drop, is substantially equal to the electrical energy required by the heater to eject the drop.

The temperatures within the printhead (other than at time of ink drop ejection) are kept well below the boiling point of the ink. This avoids unintentional boiling of the ink in the nozzles because of temperature variations within the printhead. If unintentional vapor
15 bubbles form, the nozzle may no longer operate because of the compressibility of the bubble.